clusion technique made it possible to gain more information from a smaller number of animals than would have been required otherwise. In trial 1 it was learned that loin chops from sheep were more uniform in tenderness with the techniques of cooking and sampling used in this study and thereby permitted a more valid estimate of the tenderness of an animal than leg steaks. Loin chops from animals injected at the rate of 3 mg/lb. live wt appeared to be more tender than chops from animals injected at lower or higher levels. There was a decided tendency for the leg steak receiving sodium metaphosphate by ante-mortem injection to be more tender than the corresponding control leg steak that was not subjected to the sodium metaphosphate.

In trial 2, the ante-mortem injection of sodium metaphosphate did not effect the tenderness of leg steaks to the extent of statistical significance. It is noted, however, that leg steaks from animals subject to injection were on an average more tender than steaks from control animals. The ante-mortem treatment of this study did not significantly effect loin chop tenderness. On an average basis, however, loin chops from animals injected with sodium metaphosphate following the arterial occlusion operation and slaughtered 5 minutes later were more tender than chops from control animals. Further, chops from animals injected with sodium metaphosphate 125, 65, and 5 minutes ante-mortem were more tender than chops from control animals on the average.

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